

FEB 16 1939

Index. No. 35921
(For London Office only.)Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.

Groningen N° 51.

Computation of Freeboard for ^{Motor}Steamer, Sailing Ship, Tankerhaving Forecastle, B. & Deck and poop.Port of Survey Groningen

(Type of Superstructures.)

Date of Survey 11-2-39

Ship's Name

Nationality and Port of Registry

Official Number

Gross Tonnage

Date of Build

M/V. "Mr. Linthorst Homan"

Dutch
Groningen

✓

399.99

1939

Name of Surveyor T. H. WehrmeijerMoulded Dimensions: Length 44.00 Breadth 8.000 Depth 3.100.Moulded displacement at moulded draught = 85 per cent. of moulded depth 6807³ tonsCoefficient of fineness for use with Tables .733Particulars of Classification +100 A1
class contemplated

Depth for Freeboard (D)

Moulded depth 3.100Stringer plate 8

Sheathing on exposed deck

$$T \left(\frac{L-S}{L} \right) =$$

Depth for Freeboard (D) = 3.108

Depth correction

(a) Where D is greater than Table depth
(D-Table depth) R =

$$8.33(3.108 - 2.933) 11.11 = +16 \frac{m}{m}$$

(b) Where D is less than Table depth (if allowed)
(Table depth-D) R =

If restricted by superstructures

Round of Beam correction

Moulded Breadth (B)

$$\text{Standard Round of Beam} = \frac{B \times 12}{50} = \frac{8.000 \times 12}{50} = 192$$

$$\text{Ship's Round of Beam} = 200$$

$$\text{Difference} = \text{excess} = 40$$

Restricted to

$$\text{Correction} = \frac{\text{Diff}^2}{4} \times (1 - \frac{S_1}{L}) = \frac{40^2}{4} \times 2382 = -2 \frac{m}{m}$$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	11.425	11.425	1.750		11.425
„ overhang ...	2.200				
R.Q.D. enclosed ...	15.950	15.950	1.000	1000/1002	15.920
„ overhang ...					
Bridge enclosed ...					
„ overhang aft ...					
„ overhang forward ...					
F'cle enclosed ...	6.175	6.175	1.950		6.175
„ overhang ...					
Trunk aft ...					
„ forward ...					
Tonnage opening aft ...					
„ „ forward ...					
Total ...	33.550	33.550			33.520

Standard Height of Superstructure

1830 ^m/_m

„ „ R.Q.D.

1.002 ^m/_m

Deduction for complete superstructure

519 ^m/_m

$$\text{Percentage covered } \frac{S}{L} = 76.25 \checkmark$$

$$\frac{S_1}{L} = 76.25 \checkmark$$

$$\frac{E}{L} = 76.18 \checkmark$$

Percentage from Table, Line A.

70.60 ^m/_m

(corrected for absence of forecastle (if required))

Percentage from Table, Line B.

(corrected for absence of forecastle (if required))

Interpolation for bridge less than 2L (if required)

$$\text{Deduction} = 519 \times 70.60 = -366 \frac{m}{m}$$

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ...	620	1	620	920	620	1	620
1/4 L from A.P. ...	276	4	1104	450	276	4	1104
1/2 L „ ...	69	2	138	135	69	2	138
Amidships ...		4		0		4	
3/4 L from F.P. ...	138	2	276	120	120	2	240
1/4 L „ ...	552	4	2208	420	420	4	1680
F.P. ...	1241	1	1241	1105	1105	1	1105
Total ...			5587				4887

Mean actual sheer aft = excess

Mean standard sheer aft

Mean actual sheer forward = Deficient

Mean standard sheer forward

Length of enclosed superstructure forward of amidships = } Deficient
L. „ „ aft of „ = } sheer.

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{700}{18} (.75 - .3812) = +14 \frac{m}{m}$$

If limited on account of midship superstructure.

If limited to maximum allowance of 1 1/2 ins. per 100 ft.

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

RAISED QUARTER

Depth to Freeboard Deck = 4.108

Summer freeboard = 1.050

Moulded draught (d) = 3.058

Deduction for Tropical freeboard and addition for

$$\text{Winter freeboard} = \frac{d}{48} \text{ inches} = 6.4 \frac{m}{m} = 6 \text{ cms}$$

Addition for Winter North Atlantic Freeboard (if required) = 11 cms

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$$\Delta = 800 \text{ cwt}^3$$

Tons per inch immersion at summer load water line

$$T = 2.93 \text{ cwt}^3$$

Deduction = $\frac{\Delta}{40T}$ inches

$$= 7 \text{ cms.}$$

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

733 7.68 1.413

1.36 1.36

Depth Correction ...

Deduction for superstructures ...

Sheer correction ...

Round of Beam correction ...

Correction for Thickness of Deck amidships

Other corrections, scantlings, etc. ...

+	-
16	
	366
14	
	2
1000	
1030	368

Summer Freeboard = 1052

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:—

Tropical Fresh Water Line above Centre of Disc ... 7 cms.

Fresh Water Line „ „ ... 7 cms.

Tropical Line „ „ ... NIL

Winter Line below „ „ ... 6 cms.

Winter North Atlantic Line „ „ ... 11 cms.

Tropical Fresh Water Freeboard ... 98

Fresh Water „ „ ... 98

Tropical „ „ ... 105

Winter „ „ ... 111

Winter North Atlantic „ „ ... 116

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PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS.									
P. 8.									
Description of Hatchway	...	...	...	...	...	...	...	...	...
Dimensions of Hatchway	...	...	...	...	...	...	...	...	...
COAMINGS	Height above Deck	...	Nº1	...	Nº2	...	...	...	...
	Thickness	...	1.250	...	1.030	...	...	...	...
	Sides	...	10	...	10	...	...	...	...
	Ends	...	10	...	10	...	...	...	...
	Stiffeners	...	SEE SKETCH	...	SEE SKETCH	...	...	...	...
HATCH BEAMS	Number	...	5	...	5	...	...	...	...
	Spacing	...	equal	...	equal	...	...	...	...
	Scantling and Sketch	...	plate 470x8	...	plate 470x8	...	...	...	...
	Bearing Surface	...	100x75x10	...	100x75x10	...	...	...	...
	...	...	100	...	100	...	...	...	...
FORE AND AFTERS	Number	...	...	...	...	...	...	...	...
	Spacing	...	...	...	...	...	...	...	...
	Unsupported Lengths	...	...	...	...	...	...	...	...
	Scantling and Sketch	...	...	...	...	...	...	...	...
	Bearing Surface	...	...	...	...	...	...	...	...
HATCH COVERS	Material	...	pine	...	pine	...	...	...	...
	Thickness	...	63	...	63	...	...	...	...
	How fitted	...	longitudinal	...	longitudinal	...	...	...	...
	Bearing Surface	...	65x100	...	65x100	...	...	...	...

Spacing of Cleats	...	...	150x500	...	150x500	...	...	...	...
Number of Tarpaulins	...	...	2	...	2	...	...	...	...
*Are wood fore and afters steel shod at all bearing surfaces? <input checked="" type="checkbox"/> Are battens and wedges efficient and in good condition? <input checked="" type="checkbox"/> Are tarpaulins in good condition and in accordance with rule requirements? <input checked="" type="checkbox"/> Are lashings provided in accordance with rule requirements? <input checked="" type="checkbox"/> Additional lashings are fitted over both hatchways breadth being over 60% of ships breadth.									

Particulars of fiddle, funnel and ventilator coamings:—
Fiddle, funnel and ventilator coamings in efficient condition ✓
Engine skylight of steel strongly constructed and skylights closed by steel hinged flaps. ✓

Particulars of Flush Bunker Scuttles:—
none fitted

Particulars of Companionways:— In steel deckhouse on poopdeck side of opening 1.370x610 sill 500 steel hinged door 37mm. operated from both side.
On forecastle deck steel companion way side of opening 830x750 sill 610 steel hinged door operated from both sides ✓

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:—
one vent on forecastle deck Ø 250xØ height 1100 supported. } all ventilator coamings closed by steel plugs and canvas covers ✓
on poopdeck 2 vents Ø 250xØ height 3.500 supported }
" " 9 mushrooms

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:—
In forewell 3 airpipes 1.600 above deck ✓
" 2 airpipes 830 above deck. ✓
In afterwell on B & Deck 2 airpipes 830 above deck. ✓
On Poopdeck 9 airpipes 460 above deck ✓
On forecastle one airpipe 910 above deck ✓
All airpipes closed by wood plugs or canvas covers. ✓

Particulars of Gangway Cargo and Coaling Ports:—
none fitted

Particulars of Scuppers and Sanitary Discharge Pipes:—

N.C.s from poopspace with a screw down brass storm valve at ship's side
Screw down device always accessible ✓
Sanitary discharges from poopspace with brass storm valves and screw down valves. ✓

Particulars of Side Scuttles:—

In poop and engine room side scuttles of substantial construction and fitted with hinged deadlight ✓

Particulars of Guard Rails:—

on poop and forecastle deck open rail height 960 mm 3 rods
Stanchions 1.200 apart. On poopdeck partly steel bulwark of same height.
On foreward deck and Raised Quarter deck steel bulwark height 1000
Stanchions 1.640 apart. ✓

Particulars of Gangways, Lifelines, etc.:—

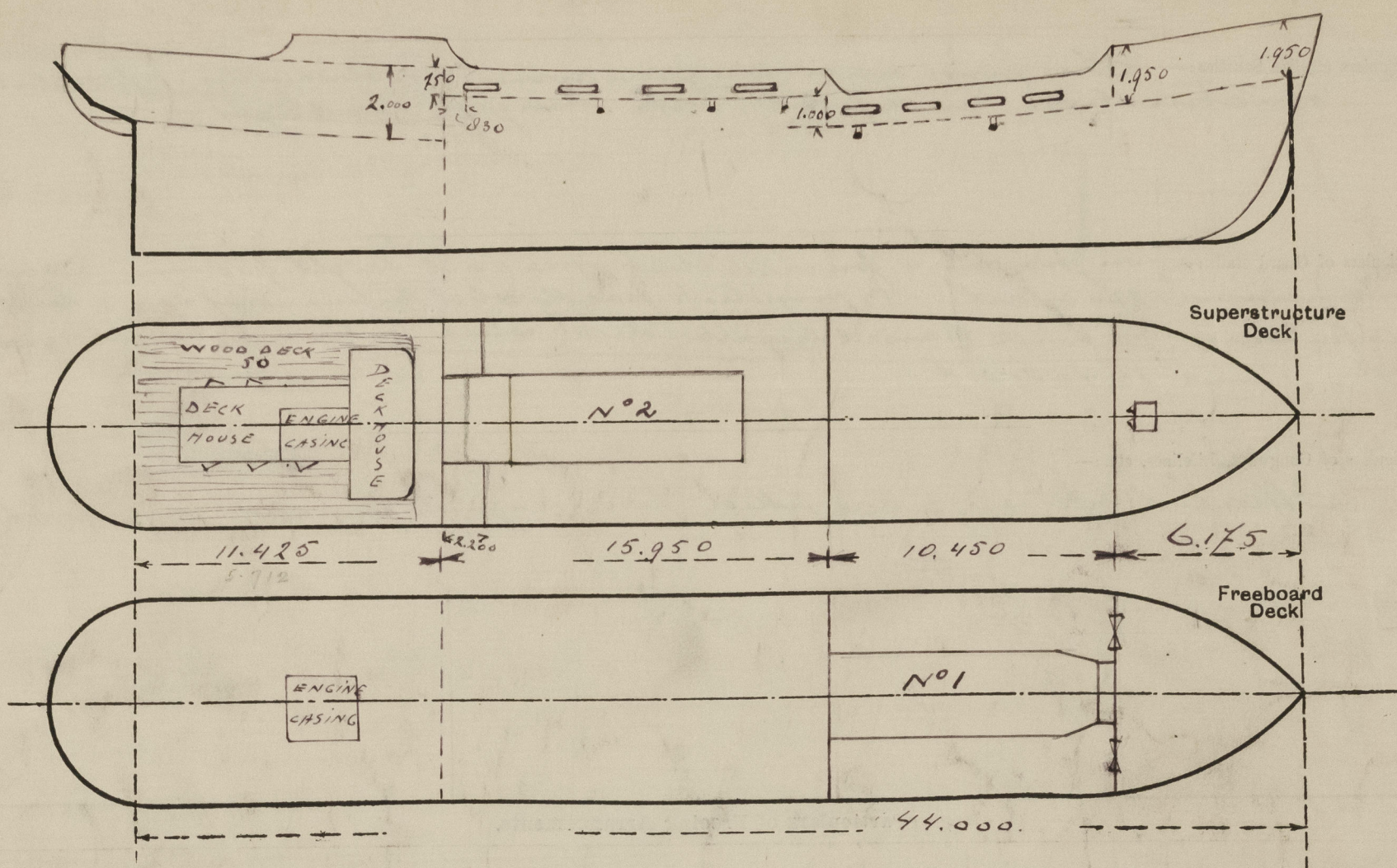
Efficient lifelines are fitted from poop to forecastle over hatchways

Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Well	15.950	1.000	1100x230	4	16m²	1.09m²
Forward Well	10.450	1.000	1370x230	4	1.004 m²	.92m²
State position of each freeing port ... After Well:— frame N° 22-28-34-41 (F. and A. position and height above deck edge) } Forward Well:— frame N° 50-54-57-61 State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— height above deck edge afterwell 200' " " " " forewell 180'. Additional area where sheer is less than standard.						

Particulars of Superstructures, Trunks, Casings, Deckhouses.								
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead
Raised Quarter Deck Bulkhead	...	7/2	1.130x7	680	hugs	none	✓	1.000
Bridge, After Bulkhead
Bridge, Forward Bulkhead
Forecastle Bulkhead	...	6	475x65x8	2050	none	1.240x920	590	1.950
Trunk, Aft
Trunk, Forward
Exposed Machinery Casings on Freeboard or Raised Quarter Decks
Exposed Machinery Casings on Superstructure Decks	...	6	475x65x6	540	none	1400x640	430	2.040
Machinery Casings within Superstructures not fitted with Class I Closing Appliances
Deckhouses on Flush Deck Ships

Particulars of Closing Appliances (state if capable of being manipulated from both sides).	
Poop Bulkhead	—
Raised Quarter Deck Bulkhead	—
Bridge, After Bulkhead	—
Bridge, Forward Bulkhead	—
Forecastle Bulkhead	portable steelplates on hookbolts not passing through bulkhead ✓
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	—
Exposed Machinery Casings on Superstructure Decks	—
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	—
Deckhouses on Flush Deck Ships	—

Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, cargo and coaling ports, and any other openings, etc., which would affect the seaworthiness of the ship are to be shewn on the following sketches:—



State any special features in the construction of the ship:—

Builder's name and yard number v. d. Werff's Scheepsbouw yard N° 202.

Names of sister ships ✓

Owners N. V. LINTHORST. HOMAN.

Fee £ 72.- will be Received by me A. H. K. K. K. K.



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Foundation